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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DESIRE, GREGORY M

ART UNIT PAPER NUMBER

2625

DATE MAILED: 03/11/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/731,120

Applicant(s)

BANTON, MARTIN E.

Examiner

Gregory M. Desire

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Constanza et al (5,900,901).

Regarding claims 1 and 8 Costanza discloses,

Receiving a plurality of pixels, representing an input pixel (note col. 5 lines 30-31, 60-61 and col. 6 lines 28-32, system includes scanner receiving input image, wherein image is a plurality of pixels); and

Varying an exposure on the photoreceptor of a selected pixel based on surrounding pixels, the selected pixel exposing an area on the photoreceptor different than other pixels (note col. 6 lines 51-56, lines cite varying an exposure on the photoreceptor).

As to claim 8 Costanza discloses,

An image output, which converts the latent image on the photoreceptor to an image on an output media (note col. 9 lines 15-20, lines cite develop image

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and printed image, which are image outputs of latent image on the photoreceptor to an image output media):

3. Claims 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al (5,659,399).

Regarding claim 10 Lin discloses

Parsing an input data sequence representative of the digital image until a determined condition (note col. 7 line 14-18, input data is parsed representing the image until other procedure)

Assigning a varied exposure value to a datum in the input sequence based on adjacency to the determine condition (note col. 7 lines 45-47, exposure based on shifted pixel).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Costanza et al in view of Lin et al (5,659,399).

Regarding claim 2 Costanza is silent disclosing,

Parsing the plurality of input pixels for a determined image characteristic. However, Line discloses parsing plurality of pixels for a determined image characteristic (note fig. 6 and col. 9 lines 28-29 and 35-40, image is segmented (parsing) producing an image characteristic (an array). Therefore it would have been obvious to one having ordinary skills in the art to parse an image in the system of Costanza as evidenced by Lin. Costanza teaches an input image and Lin in the same field of endeavor parses input images improving stability of xerographic generated output (note col. 4 lines 55-56).

Regarding claim 3 Costanza and Lin discloses,

Where the parsing comprises template matching the plurality of image pixels (note Lin col. 9 line 39 and 42-44, segment comprises template matching).

Regarding claim 4 Costanza and Lin discloses,

Based on the parsing selecting a pixel comprising the determined image characteristic for varied exposure (Lin col. 4 lines 63-67, based on parsing selecting a pixel (dimensionality) comprise image characteristic); and

Variably exposing the selected pixel relative to the reference level (note Lin col. 5 lines 1-5, variably exposing selected pixel relative to reference level (position modulation))

Regarding claim 5 Costanza and Lin discloses,

Delaying exposing of the photoreceptor for the selected pixel (note Costanza col. 6 lines 20-25, time is selected, thus delay occur).

Regarding claim 6 Costanza and Lin discloses,

Ceasing exposing the photoreceptor for the selected pixel prior to other pixels (note Costanza, col. 5 lines 40-46, exposing the photoreceptor based on raster pattern, ceasing occurs null of the pattern).

Regarding claim 7 Costanza and Lin discloses,

Where the varying step comprises altering the exposure of the photoreceptor for selected pixels comprising identifiable image structures (note Costanza col.6 lines 54-56, varying of exposure of the photoreceptor for selected pixel comprising identifiable data source).

Regarding claim 9 Costanza and Lin discloses,

An image structure parser, which examines the pixels to determine an image structure beneficially adapted to varied exposure (note Lin, col. 6 lines 14-21, neighboring pixels of 5 linearly adjacent pixels, examiner interprets as image structure, these pixels are beneficially adapted for exposure);

An image pixel selector which analyzes pixels comprising the determined image structure and selects a pixel for varied exposure (note Lin col. 7 lines 38-45, from the neighborhood pixels a target pixel is analyzed based on position varying exposure); and

An exposure calculator, which determines a variable exposure relative to a reference for at least the selected pixel (note Lin col. 7 lines 45-49, processor determines a variable exposure relative pixel region for target pixel).

6. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Thompson et al (5,623,714).

Regarding claim 11 Lin is silent disclosing,

Converting the assigned varied exposure value to an associated electrostatic exposure on the charge retentive surface. However, Thompson converts the assigned varied exposure value to an associated electrostatic exposure on the charge retentive surface (note col. 9 lines 40-47, lines cite charged surface receiving, varied exposure projects image on that surface). Therefore it would have been obvious to one having ordinary skills in the art to convert the assigned varied exposure value to an associated electrostatic exposure on the charge retentive surface in the system of Lin as evidenced by Thompson. Lin varies exposure and Thompson associate exposure with charged surface important components for efficient automatic reset of an exposure system (note col. 1 lines 36-39)

Regarding claims 12-13 Lin and Thompson,

Assigning a value representative of electrostatic exposure relative to a reference value to a first datum in the input sequence at a position in the

boundary (note Thompson fig. 9 blocks 21 and 23 and col. 10 lines 12-14, level representing adjustable exposure relative to reference values).

Regarding claim 14 Lin and Thompson discloses,

Assigning a value representative of electrostatic exposure timing relative to a reference to a datum in the input sequence, the datum being at a determined position in the corner (note Thompson, col. 10 lines 23-27, exposure set predetermined times relative to data sequence).

Regarding claim 15 Lin and Thompson discloses,

Illuminating a portion of the charge retentive surface with:

A first spot size data assigned with the reference value (note Thompson, col. 9 line 65-67, toner patch examiner interprets as spot size data); and

A second spot size smaller than the first spot size for data assigned with varied exposure value (note Thompson, col. 10 lines 1-5, many patch, they are based on light reflection determining the size).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (703) 308-9586. The examiner can normally be reached on M-F (8:30-6:00) Second Monday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory M. Desire
Examiner
Art Unit 2625

G.D.
March 3, 2004


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